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Quality Engineering Test Report

SERIES: SCN-600 600W PARALLEL SWITCHING POWER SUPPLY

SAMPLE:

B.SCN-600-05	+05V / 100A
C.SCN-600-12	+12V / 50A
D.SCN-600-15	+15V / 40A
E.SCN-600-24	+24V / 25A
F.SCN-600-48	+48V / 12.5A

NO	TEST ITEM	TEST CONDITION / SPECIFICATION	RESULT	VERDICT
1	AC INPUT VOLTAGE RANGE	I/P:TESTING SPEC: 220VAC O/P:FULL LOAD SELECT BY SWITCH	C:139~264VAC	P
2	LINE REGULATION	I/P:180~260VAC SPEC: ±1% D:190~260VAC O/P:FULL LOAD	B: -0.1%~ +0.1% C: -0.1%~ +0.1% D: -0.1% ~ +0% E: -0.1% ~ +0% F: -0% ~ +0%	P
3	LOAD REGULATION	I/P:230VAC SPEC: ±2% O/P:MIN.TO FULL LOAD	B: -0.5%~ +0.5% C: -0.4% ~ +0.4% D: -0.6% ~ +0% E: -0.4% ~ +0% F: -0% ~ +0%	P
4	OUTPUT VOLTAGE TOLERANCE	I/P:180~260VAC SPEC: B:±2% O/P:MIN.TO FULL LOAD C~F:±1%	B: -0.5%~ +0.5% C: -0.5% ~ +0.4% D: -0.6% ~ +0% E: -0.4% ~ +0.4% F: -0.1% ~ +0%	P
5	RIPPLE&NOISE	I/P:230VAC SPEC: B:±2% O/P:FULL LOAD C~F:±1%	B: 100mV C: 50mV D: 130mV E: 80mV F: 90mV	P
6	AC INPUT CURRENT	I/P:230VAC SPEC: 5.5A O/P:FULL LOAD	C:5.4A	P
7	MAX. INRUSH CURRENT	I/P:230VAC SPEC: NONE O/P:FULL LOAD	C:45.9A	P
8	O/P VOLTAGE ADJ.RANGE	I/P:230VAC SPEC: ±5% TYP O/P:MIN. LOAD	B: -3.6%~+5.6% C: -4.1%~+5.8% D: -10%~+10% E: -10.4%~+12% F: -9.1%~+10.4%	P
9	SET UP TIME	I/P:230VAC SPEC:800mS O/P:FULL LOAD	C:167.4mS	P
10	HOLD UP TIME	I/P:230VAC SPEC:10mS O/P:FULL LOAD	C:28mS	P
11	EFFICIENCY	I/P:230VAC SPEC: B:77% C:80% D:81% E:85% O/P:FULL LOAD F:87%	B:77.5% C:83.0% D:86.9% E:85.7% F:87.9%	P
12	OVER LOAD PROTECTION	I/P:230VAC SPEC: CURRENT O/P:TESTING LIMITING	B:117% C:114% D:112% E:118% F:112% O/P SHORT, AFTER 8 sec. POWER SHUT DOWN	P
13	OVER VOLTAGE PROTECTION	I/P:230VAC SPEC: C:16.8V O/P:TESTING	C:16.2V	P

<table>
<tr><th>NO</th><th>TEST ITEM</th><th colspan="2">TEST CONDITION / SPECIFICATION</th><th>RESULT</th><th>VERDICT</th></tr>
<tr><td rowspan="5">14</td><td rowspan="5">SPECIAL FUNCTION</td><td>REMOVE SENSEING</td><td>VS+-LOAD+,VS-~LOAD-</td><td rowspan="5">B:TEST OK
C:TEST OK
D:TEST OK
E:TEST OK
F:TEST OK</td><td rowspan="5">P</td></tr>
<tr><td rowspan="2">REMOVE CONTROL</td><td>GND-INH SHORT POWER ON</td></tr>
<tr><td>GND-INH OPEN POWER OFF</td></tr>
<tr><td rowspan="2">OUTPUT VOLTAGE ADJ.</td><td>VCI-VCO SHORT O/P:+Vout</td></tr>
<tr><td>VCI-GND +0.5~5VDC
O/P:+10%~100%Vout</td></tr>
<tr><td colspan="2">PARALLEL FUNCTION</td><td colspan="2">C:L--FG: 0.3 mA
N--FG: 0.28 mA</td><td>P</td></tr>
<tr><td>15</td><td>GROUND LEAKAGE CURRENT</td><td colspan="2">I/P:240VAC SPEC:
L--FG--<3.5mA
N--FG--<3.5mA</td><td colspan="2">C:L--FG: 0.3 mA
N--FG: 0.28 mA</td><td>P</td></tr>
<tr><td>16</td><td>INSULATION RESISTANCE</td><td colspan="2">SPEC:
I/P -- O/P 500VDC / 100M Ohms MIN.</td><td colspan="2">C:I/P -- O/P>100M Ohms</td><td>P</td></tr>
<tr><td>17</td><td>DIELECTRIC / WITHSTAND VOLTAGE</td><td colspan="2">SPEC: I/P-- O/P: 1250VAC/ 1 min. (10mA CUT-OFF)
I/P -- FG: 1250VAC/ 1 min. (10mA CUT-OFF)</td><td colspan="2">C:NO BREAK
I/P--O/P :2.5mA
I/P--FG :2.2mA</td><td>P</td></tr>
<tr><td>18</td><td>BURNIN TEST</td><td colspan="2">I/P: 230VAC O/P:FULL LOAD
TA:25℃ BURN-IN DURATION: 2 hrs</td><td colspan="2">C:NO BREAK</td><td>P</td></tr>
<tr><td>19</td><td>TEMPERATURE RISE TEST T rise OF PARTS</td><td colspan="4">A:I/P :230VAC AFTER 2 hrs BURN-IN
O/P :FULL LOAD TA:25℃
<table>
<tr><th>POSITION</th><th>P/N</th><th>TEMP</th><th>T rise</th></tr>
<tr><td>D1</td><td>BRIDGE DIODE</td><td>36.7℃</td><td>11.7℃</td></tr>
<tr><td>Q1</td><td>MAIN TRANSISTER</td><td>65.4℃</td><td>40.4℃</td></tr>
<tr><td>T4</td><td>MAIN TRANSFORMER</td><td>49.2℃</td><td>24.2℃</td></tr>
<tr><td>D21</td><td>O/P DIODE</td><td>73.1℃</td><td>48.1℃</td></tr>
<tr><td>C40</td><td>O/P FILTER CAPACITOR</td><td>39.1℃</td><td>14.1℃</td></tr>
<tr><td>L4</td><td>O/P CHOKE</td><td>57.3℃</td><td>32.3℃</td></tr>
</table></td><td>P</td></tr>
<tr><td>20</td><td>LIFE CYCLE</td><td colspan="4">A:
SUPPOSE C40 IS THE MOST CRITICAL COMPONENT
(C40 : STONE 2200uF/63V,85℃ ,2000hrs)
I/P:230VAC O/P:FULL LOAD TA:25℃ C40:39.1℃ Life: 48167 hrs</td><td>P</td></tr>
<tr><td>21</td><td>CONSTRUCTION INSPECTION (FOR QC INSPECTION REFERENCE ONLY)</td><td colspan="4">A: 1. PACKING :WHITE BOX
2. MARKING :I/P 110/220VAC 47~63Hz , O/P 12VDC/50A
3. TOPOLOGY :HALF BRIDGE CIRCUIT
4. MECHANICAL :I/P 3 PIN TERMINAL,O/P 2 TERMINAL,
SPECIAL FUNCTION CONTROL : 8 PIN CONNECTOR</td><td></td></tr>
<tr><td>22</td><td>CRITICAL COMPONENT RECORD (FOR QC INSPECTION REFERENCE ONLY)</td><td colspan="4">A:FUSE : 10A/250V
BRIDGE DIODE : D15B60
LINE FILTER : EE-3010
TRANSFORMER : ETD-49
POWER SWITCHER : IXYS,IXFH26N50 x 2PCS
OUTPUT DIODE : C30P10Qx4 TO3P
INPUT CAPACITOR : RUBYCON 680uF/250V MXR 105℃x4
OUTPUT CAPACITOR : STONE 2200uF/63V -40~85℃x5
P.C.B : CEM-1, 2 OZ
FAN : INNOVATIVE 6cm/12V BP602512H</td><td></td></tr>
</table>

DATE	SAMPLE	TEST RESULT	TEST	APPROVAL
861126	SCN600-12	PASS	T.K.CHENG	MAX LIN
1999.5.6	SCN-600-24 SCN-600-15 SCN-600-48 SCN-600-05	PASS	T.K.CHENG	MAX LIN

PREVIOUS